

1.5.4 Average Annual Carbon Dioxide Emissions for Various Functions

	Annual Unit Energy Consumption	Carbon Emissions	
		(MMT CO ₂)	(lb CO ₂)
Stock Refrigerator (1)	1,359 kWh - Electricity	0.9	1,900
Stock Electric Water Heater	2,814 kWh - Electricity	1.8	3,900
Stock Gas Water Heater	24 million Btu - Natural Gas	1.3	2,800
Stock Oil Water Heater	32 million Btu - Fuel Oil	2.3	5,100
Single-Family Home	108 million Btu	12.3	27,000
Mobile Home	70 million Btu	8.0	17,600
Multi-Family Unit in Large Building	54 million Btu	6.2	13,600
Multi-Family Unit in Small Building	85 million Btu	9.6	21,200
School Building	2,125 million Btu	263.3	580,600
Office Building	1,376 million Btu	170.5	375,900
Hospital, In-Patient	60,152 million Btu	7,453.4	16,434,700
Stock Vehicles			
Passenger Car	522 gallons - Gasoline	4.6	10,127
Van, Pickup Truck, or SUV	605 gallons - Gasoline	5.3	11,738
Heavy Truck	1,456 gallons - Diesel Fuel	13.2	29,181
Tractor Trailer Truck	12,100 gallons - Diesel Fuel	110.0	242,476

Note(s): 1) Stock refrigerator consumption is per household refrigerator consumption, not per refrigerator.

Source(s): EIA, Annual Energy Outlook 2011 Early Release, Dec. 2010, Summary Reference Case Tables, Table A2, p. 3-5 for consumption and Table A18, p. 36 for emissions; EIA, Annual Energy Outlook 2008, Mar. 2008, Table G1, p. 215 for gasoline heat rate; EIA, A Look at Residential Energy Consumption in 2005, January 2009, Tables WH6 and WH7 for water heater energy consumption, Table AP2 for refrigerators energy, and Table US9 for household consumption; EIA, 2003 Commercial Buildings Energy Consumption Survey, June 2006, Table C3, p. 247 for commercial buildings; ORNL, Transportation Energy Data Book: Edition 29, 2010, Table 4.1, p. 4-2, Table 4.2, p. 4-3, Table 5.1, p. 5-2 and Table 5.2, p. 5-3 for vehicles; and EIA, Assumptions to the AEO 2008, June 2008, Table 2, p. 9 for carbon coefficients.